DETAILED ACTION

Preliminary amendment to claims 1-15, dated 8/14/2006 is received . Claims 1-15 are pending and are examined in the current application.

Information Disclosure Statement

The information disclosure statement filed 8/14/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. The NPL references cited in said IDS have not been supplied by the applicant and thus, the two NPL references have not been considered. Applicant is requested to furnish the references in order to expedite prosecution.

Claim Objections

Claims 1-14 are objected to because of the following informalities:
Claims as recited includes the term "characterised in that" in the claim 1, line 2. Applicant is suggested to change the phraseology to a more accepted US term, such as "wherein" to clarify the meaning of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite for the recitation of a term "refining" in step b) of claim 1. The term refining" in claim 1 is a relative term which renders the claim indefinite. The term

"refining" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. As recited it is unclear because the term refining may mean different things to different people in the art, such as, it is not clear whether the term refining refers to the reduction in size, i.e., making the particles finer, or whether "refining" refers to the process of purifying the composition. Correction and clarification is required.

Claim 3 as recited is indefinite for the recitation of "at least a non-sweetening excipient and/or additives, flavoring agents, preservatives, stabilizers." The recitation of term "and/or" makes the scope of the unclear as to whether the limitations recited after the and/or are required or optional limitations. Correction is required.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).
In the present instance, claim 5 recites the broad recitation for the amount of coloring agent "amount up to a maximum 4%", and the claim also recites "preferably of 2-4%" which is the narrower statement of the range/limitation.

Similarly, claim 6 recites the broad recitation for the mixing time "for a time of 5-60 minutes", and the claim also recites "preferably of 10-50 minutes" which is the narrower statement of the range/limitation.
Similarly, claim 11 recites the broad recitation for particle size "average below 150μ", and the claim also recites "preferably 10-30μ" which is the narrower statement of the range/limitation.
Similarly, claim 12 recites the broad recitation for particle size "average of 5-50μ", and the claim also recites "preferably 150 μ" which is the narrower statement of the range/limitation.
Correction is required.
Claims 13-14 provide for the use of "colored icing sweetener", but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 13-14 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).
1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

A) Claims 1-2, 4-5, 7-9 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta (US 3802915).

Regarding claims 1 and 9, Gupta discloses a process for preparing free flowing sugar powder (e.g., see Abstract), wherein a colored sugar can be utilized for the production of foods, such as reconstituted beverage, dry beverage mix, candies, baked goods, puddings and food decoration (e.g., see Abstract, column 3, lines 42-51), which includes sugar or sweetener for icing purposes, as recited in claim 1.
Gupta discloses a method where a sweetener and at least a coloring agent are mixed (e.g., see Examples 1-5) by using a blender, where the mixture undergoes a simultaneous mixing and size reduction, i.e., mixing refining, as instantly claimed.
Regarding the limitation of addition of water in an amount of 0-25% by weight with respect to the sweetener, Gupta discloses of processes where the water may either be

incorporated in the mix or is incorporated in with the color to make a concentrated color solution (e.g., see Examples 1-5 and columns, 2-3). Thus Gupta teaches of substantially the same process as instantly claimed. Regarding the equipment, i.e., mill, as instantly claimed and simultaneous mixing and refining, as claimed, Gupta accomplishes mixing and refining by Using a Hobart blender to blend dry ingredients (see example 5). Further it is well known that a blender also typically sizes the material being blended or mixed. Specifically see Column 5, lines 20-30, where Gupta discloses that increasing the speed of agitation results in particles becoming finer, i.e., a blender sizes the material being blended or mixed. Thus, a blender as disclosed by Gupta to mix the components, will essentially achieve the same function of uniformly blending or mixing and refining (i.e., reducing in size) the components of the mix as claimed, i.e., Gupta's blender is essentially a functional equivalent of mill, as claimed. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one art recognized functional equivalent (i.e., blender) for another (i.e., mill) in the production of colored sweeteners, depending on which equipment was more easily available and affordable at the time the invention was made. Further the applicants are referred to MPEP § 2144.07, *In re Leshin*, 125 USPQ 416 (CCPA 1960), where the Courts have held that the selection of a known material…, which is based upon its suitability for the intended use, is within the ambit of one of ordinary skill in the art.

Regarding claim 2, Gupta discloses of sucrose, as claimed (See, e.g. Examples 1-10).

Regarding claim 4, Gupta discloses of granulated sugar(See, e.g. Examples 5-10 and column 5), as claimed.

Regarding claim 5, Gupta discloses addition of coloring agent in an amount of 0.333 grams per about 1000 grams, which falls below applicants' maximum amount of 4%, as instantly claimed.
Note: applicant is also referred to rejection under 112(second paragraph) above.

Regarding claim 7 and 8, Gupta discloses of known methods where either the water is added to sugar or alternatively added to the coloring matter (See Columns 2-3 and Examples 1-10), thus as disclosed, Gupta teaches of both types of methods, as recited in claims 7 and 8.
Further, regarding claim 8, Gupta discloses of methods in examples 1-5 where varying amounts of water was added to make a colored sugar product, which ranges from 6 ml to 170 ml for about 1000 grams of sugar, i.e., 0.6 to 17%, which fall within applicants' recited range of water addition in an amount of 5-20% by weight with respect to the sweetener.

Regarding claims 13-14, Gupta discloses that colored sugar can be utilized for the production of foods, such as reconstituted beverage, dry beverage mix, candies, baked goods, puddings and food decoration (e.g., see Abstract, column 3, lines 42-51), which includes use of sugar or sweetener as a food ingredient and for the purpose of application in the confectionery field, for improving the appearance, attractiveness and organoleptic properties of any type of sweet, as recited in claims 13 and 14 .

B) Claims 3 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta (US 3802915), as applied to claims 1-2, 4-5, 7-9, and 13-14 in view of Pearson et al (US 6123980), hereinafter Pearson.

Gupta has been applied to claims 1-2, 4-5, 7-9 and 13-14 above.

Regarding claim 3, Gupta discloses of sugar and color and moisture, but does not teach addition of any non-sweetening excipient or other additives. However, addition of additives or excipients was well known for making mixtures comprising colored sugars. For example, Pearson discloses of making blended sugars having color (see abstract and Column 3, lines 1-15) with additives, such as spices, flavors, cocoa, fruit extracts,

inulin, hydrocolloids, pharmaceuticals, vitamins, etc. (see Column 3, lines 1-15), which are non-sweetening additives, as instantly claimed. Thus making sugar blends having color, and other additives was well known in the art at the time of the invention and it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gupta and include non-sweetening additives to the colored sugar mixture to create flavor and color combinations that can be readily used in making foods readily. One of ordinary skill would have been motivated to modify Gupta at least for the purpose of making a homogenously blended flowable product that can be used as a delivery system for pharmaceutically and nutritionally active ingredients in a colored sugar matrix.
Note: applicant is also referred to rejection under 112(second paragraph) above.

Regarding claims 10-12, Gupta discloses of utilizing commercially available granulated sugar (e.g., see Example 5, Column 4), and in other example discloses of coloring confectioner's sugar 6X (See, example 1). Gupta further discloses that "the above process may be used to produce any desired type of sugar particle or crystal size. The final particle size of course will be dependent upon the original sugar crystal size to be colored and the speed of agitation that is adopted during the sugar coloring process. As the speed of agitation of all of the ingredients (water, sugar, color) is increased, the particles become finer or smaller in size" (Column 5, lines 15-30). Further, sugar blends were known to be made with sugars in applicant's claimed size ranges from about 5 microns to 200 microns on an average, as disclosed by Pearson (see, e.g., column 2, lines 55 to 65).Thus, it would have been a matter of routine determination for one of ordinary skill in the art at the time of the invention to modify Gupta and utilize any desired size of commercially available sugar to make the colored sugar mixture as disclosed by Gupta. One of ordinary skill would have been motivated to do so at least for the purpose of achieving a colored sugar or sweetener complex having the desired particle size, based on the intended use of the colored powdered product.

C) Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta (US 3802915), as applied to claims 1-2, 4-5, 7-9, and 13-14 in view of NPL reference of a Recipe for How to make tinted sugars From Gladys (obtained from recipelink.com), hereinafter Tinted sugars recipe.

Gupta has been applied to claims 1-2, 4-5, 7-9 and 13-14 above.
Regarding claim 6, Regarding the limitation of "simultaneous mixing-refining step of step being carried out at 4000-5000 rpm, at an approximately room temperature" and for a time of 5-60 min, Gupta discloses of using a Hobart mixer and the mixing is done for time varying from about 20 minutes, as disclosed in Example 5 to about 15 minutes, as disclosed in Example 6, which fall in applicants' recited range for time. Gupta does not specify the speed of the mixer, but mixers of varying speeds were well known in the art at the time of the invention. Gupta discloses that it would have been within the purview of the invention to vary the sugar crystal size by increasing the speed of agitation, i.e., as the speed of agitation is increased, the particles become finer (Column 5, lines 15-26). Thus, varying the speed of agitation or mixing was known at the time of the invention. Thus, it would have been well within the realm of routine determination for one of ordinary skill in the art at the time of the invention to employ a desirable speed to mix or blend a sugar, color and water mixture, such that the color is uniformly distributed and that the product is free flowing colored sugar powder. One of ordinary skill would have been motivated to adjust either the speed or the time of mixing or both to make a uniformly colored sugar or sweetener powder, at least based on the size and type of equipment available at the time the invention was made. In equipment having similar functionality, substituting one equipment for another based on availability and cost, in order to achieve a similar product, i.e., blended sugar and color, OR adjusting the time or speed of mixing to make a sugar and color mixture, does not impart patentable distinction to claims as recited, absent any clear and convincing arguments or evidence to the contrary.

Regarding claim 6, Gupta does not disclose a specific temperature and discloses that the process is practical and economical and allows for the color intensity of dried powder to be adjusted merely by adjusting the mixing time (see, Column 2, line 30 to Column 3, line 50). Gupta, as discussed above is silent about a specific temperature, however, it is noted that typically in industrial processes when the temperature is not disclosed, it usually means that process is carried out under ambient or room temperature. Further, Gupta does not disclose of heating the water or color mix (See Columns 2 and 3), i.e., no increase in temperature. Further, mixing of sugar and color paste with water at room temperature and hand mixing at home was known to produce colored sugar as disclosed by Tinted sugars recipe. Thus, coloring sugars can be achieved at about room temperature. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gupta and specifically perform the process of making colored sugar at about room temperature. One of ordinary skill would have been motivated to modify Gupta at least for the purpose of making colored sugar mixture more economically by avoiding excessive or unnecessary use of energy to heat and cool the sugar mixture.
Note applicant is also referred to rejection under 112(second paragraph) above.

D) Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta (US 3802915), as applied to claims 1-2, 4-9, and 13-14 in view of NPL reference of a Recipe for Sugar Cookies From Karyn, hereinafter Sugar cookie recipe.

Gupta has been applied to claims 1-2, 4-5, 7-9 and 13-14 above.

Regarding the limitation of application on the surface of the food product by means of sprinkling, it is noted that Gupta discloses of using colored sugar in confectionery, and for food decoration (See Column 3, lines 42-51). Further, sprinkling sugar or colored sugar on baked goods was well known as a method of decorating at the time of the invention, as disclosed in Sugar cookie recipe. Therefore, it would have been a matter of routine determination for one of ordinary skill at the time of the invention to modify

Gupta in view of Sugar cookie recipe and sprinkle colored sugar to decorate the food product. One of ordinary skill in the art would have been motivated to do so at least in order to enhance the appearance of a food product while adding a touch of sweet.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTI CHAWLA whose telephone number is (571)272-8212. The examiner can normally be reached on 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC
Examiner
Art Unit 1794

/Keith D. Hendricks/
Supervisory Patent Examiner, Art Unit 1794